

## **ABSTRACT OF THE DISCLOSURE**

A method of estimating bandwidth capacity, available bandwidth and utilization along a path in an IP network is disclosed. ICMP time-stamp requests are sent from a source host on the edge or inside the network to all routers on the end-to-end path to a desired destination.

Differences between time-stamp values are used as indicators of QoS service at each router. The collected measurements are then processed at the sending host to infer QoS parameters in terms of path capacity in bit/sec, available bandwidth in bits/sec, individual link utilization and congestion at each router. These parameters can be combined to infer the QoS service in terms of bandwidth on the end-to-end path.